December 96

## DCI(GEN)XXX/96 - THE PROVISION OF INTERNET CONNECTION

**Introduction**

1.  The Internet is a worldwide federation of interconnected
computer networks. It provides for global exchange of information
at modest cost between a wide range of computer configurations.
It offers the opportunity to communicate internationally by
electronic mail (e-mail), to access the databases of other
participating computer users, to distribute software, to
communicate in real time in audio and video and to disseminate
information to the world at large. The full potential of the
Internet has yet to be achieved but it is already clear that there
are benefits for the MOD in using this medium.

2.  This instruction states the DGICS interim policy, and the
procedures required, for establishing an Internet connection. It
lists the steps for obtaining approval for an Internet connection,
the security procedures and the contribution of the Service
Providers and Installation Design Authorities. Detailed operating
instructions of the Internet are not included as these are
obtained from the appropriate service providers.

**Policy**

3. DGMO has been tasked to develop a framework for the use of the Internet in the MOD. The role of DGICS is to provide the technical service that minimises risks and provides value for money. Policy on the installation and use of the Internet is still evolving; this policy will be published by DGMO in due course addressing the wider aspects of release of information to the public, quality control of Home Pages and management of e-mail. This DCI gives guidance on the interim procedures for establishing an Internet connection, the controls to ensure that the Internet is not misused and that MOD information is protected from unauthorised access. Additional restrictions may be imposed by sectors when addressing their own policy.

4. It is planned that procurement of full Internet services will be available through the DGICS catalogue by mid 1997, where a small number of approved Internet Service providers will be identified. Detailed guidance will be published in JSP 343 - The MOD ICS Handbook.

**Facilities.**

5. The Internet offers a wide range of facilities that may have value to the MOD. The following are the ones most likely to be relevant to MOD business:

a.   Home pages.  The formation of a Home Page allows sectors of the MOD to publish information they wish to be seen in the public domain, obtaining a worldwide readership. Recruiting and Press releases are just two examples of such use.

b.   Electronic Mail.  This service allows users to send and receive messages across the worldwide community at relatively low cost. This is most useful to MOD personnel when travelling abroad on MOD business and passage of information between MOD departments and departments of other allied countries.

c.   Newsgroups and Bulletin Boards.  These are extensions of e-mail allowing users sharing a common interest to communicate on an all informed basis. Bulletin Boards are heavily used by the scientific and academic community for publishing of papers on various subjects

d.   File Transfer.  The File Transfer Protocol (FTP) allows data files to be transferred from a remote system to the user's computer or vice versa.

e.   World Wide Web.  This functionality takes the form of pages of information, often in multi media format. Users are able to access pages offering many topics; searching for topics is simplified by using a "mining tool" such as Infoseek and Yahoo.

f.   <u>Electronic Business</u>.  Facilities are being developed to provide means of advertising, charging and paying for services and goods across the Internet. Currently, security, charging and public policy on government procurement are restricting the use of these facilities.

**Planning the Connection to the Internet**

6.   Connection to the Internet will be provided as an MOD communication service through the DGICS Catalogue by mid 1997. In the interim, where local procurement procedures do not exist, the following procedures should be followed:

a. Prepare a brief business case for the appropriate budget manager, showing how any additional costs can be justified. Obtain financial approval.

b. Draft system security policy and security operation procedures and seek the approval of the appropriate security authority to proceed. Refer to JSP440, Chapter 5 and DCI 4/ 96.

c. Seek the advice of the sector Coordinating Installation Design Authority (CIDA – see below) on the installation criteria.

d. Carry out the procurement procedure for the service through single sector procedures; where a number of Internet accesses are required, procedures for using the existing enabling contractors for IT services can be used, indicating any preference for one of the Service Providers.

e. The Service Provider will liaise direct to implement connection and allocate domain name.

g. Implement procedures for the management and monitoring the use of the Internet.

**Security**

7.  The Internet is open to a world wide computing fraternity and until such times that accredited security products are available for government use, it is necessary to restrict its use to unclassified MOD business.  In general, to prevent unauthorised access to MOD data, Internet connections and applications must be run on machines which are dedicated to the Internet role and which hold no protectively marked or caveated material. The security requirements for all connections to the Internet are contained in Chapter 5 of JSP 440 – The Defence Manual of Security Volume 3 – Information Technology Systems. Further details on Computer Security can be found in DCI 4/96.

8.  The approved method of connection to the Internet is by the use of a machine dedicated to processing Internet data. The security requirements of JSP440 are summarised as follows:

a. A System Security Policy (SSP) and Security Operating Procedures for the Internet machine must be produced. Proforma for these documents are contained in JSP 440.

b. The approval of the appropriate Security Authority must be obtained before equipment is connected to the Internet.

c. The machine must be clearly marked as being for Unclassified use only.

d. Care must be taken to ensure that information held or created on the web site by virtue of its nature or aggregation, does not warrant upgrade to a higher level of protective marking.

e. The transfer of data from the machine dedicated to the Internet to other MOD IT systems must be achieved by manual methods using either hard copy or floppy disks, i.e. an air gap must exist between the two machines. It is important that all such material must be checked for the presence of viruses and other malicious software prior to loading onto the MOD system. It is recommended that anti-virus software is

installed on the Internet machine so that the integrity of imported software can be checked immediately. In addition good "hygiene" practices should be carried out by routine checks for viruses.

**Coordinating Installation Design Authorities**

9.    Coordinating Installation Design Authorities (CIDA) exist to ensure that Information Technology and Office Automation systems are installed to a common standard. CIDAs are responsible for installation approval of all new Internet connections and their early advice should be sought. Points of contact in CIDAs are:

    a.    MOD HQs and MOD(PE):   ICS(Infra)Comms 1
        Tel: ███████████

    b.    Royal Navy: Directorate of Naval Shore Telecommunications
        Tel: ███████████████

    c.    Army: Communications Projects Division, CIS Eng Group
        Tel: ████████████

    d.    RAF:   RAF Signals Engineering Establishment
        Tel: ████████████

10. If defence telephone networks are to provide the connectivity, prospective users must consider the ability of these network to

accommodate the increased loading of existing lines and of the budget holder's ability to pay for any additional lines and infrastructure that may be required. The appropriate CIDA can advise on line loading and operating costs.

11. When considering the cost of providing an Internet facility, allowance needs to be made for the following:

a. Normally a dedicated, stand alone, personal computer is required. Whilst it is possible to access the Internet using any machine, a high performance multi media machine may be more effective for some applications.

b. A modem or appropriate network card is required. Generally the cost of a modem increases with its performance, however, high speed modems can reduce call duration and consequent running costs.

c. A printer may be needed.

d. Installation costs arising from the provision of furniture, laying of cables etc.

e. Call charges.

f. Connection and rental charges.

**Service Providers**

12. Access to the Internet is obtained through an agency or contractor known as an Internet Service Provider. In order to simplify the procurement of Internet services and obtain best value for money and quality of service it has been decided that the number of Service Providers to the MOD for new Internet connections will be restricted, through competition, to a small number. On completion of the competitive tendering process, the list of approved Service Providers will be published in the DGICS catalogue with comprehensive details of services offered and costs. Full details will also be published in JSP343, the MOD ICS Handbook.

13. In the interim sectors should take advice on the suitability of Service Providers from their single sector focus for the Internet.

**Creating Internet Pages.**

14. The process of producing a Home Page suitable for publication on the WWW involves the use of word processors or text editors which produces documents written in a form know as Hypertext Markup Language (HTML). In anticipation of future policy and to allow the MOD Library a degree of coordination, users producing home pages should inform the MOD Library of their current and future published material. Guidance on the production of WWW pages is to be obtained from the staff of the MOD Chief Librarian, tel MOD Main Building ███████.

15. Before material is published on the Internet users must seek advice and editorial clearance from their respective DPRs for the single Services and D Info D for the Centre Staff and PE.

**Improper Use of the Internet**

16. Internet facilities provided by the MOD are for the pursuit of official business. Care must be taken that no messages are made publicly available that may be considered to be defamatory in any way and expose the sender of the MOD to retribution, in addition the use for personal advantage of Internet facilities provided by the MOD is not permitted, and may result in disciplinary action being taken against the user. Technology is available through most Internet Service Providers to monitor access, provide statistics and bar access to none work related WWW sites.

17. Queries relating to this instruction should be passed to:

ICS(Pol)Sec1b

DGICS